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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,518	11/16/2001	William Fenical	6627-PA1022	7755
7590 02/24/2004			EXAMINER	
LISA A. HAILE, ESQ.			MARX, IRENE	
GARY CARY WARE & FREIDENRICH LLP			ARTIBUT	DARED MINARED
4365 EXECUTIVE DRIVE			ART UNIT	PAPER NUMBER
SUITE 1100			1651	
SAN DIEGO, CA 92121			DATE MAILED: 02/24/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)		
	09/991,518	FENICAL ET AL.		
Office Action Summary	Examiner	Art Unit		
	Irene Marx	1651		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the	correspondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute. Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be till y within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	nely filed  ys will be considered timely. In the mailing date of this communication.  ED (35 U.S.C. § 133).		
Status				
1) Responsive to communication(s) filed on 18 Dec	ecember 2003.			
2a)⊠ This action is <b>FINAL</b> . 2b)☐ This	action is non-final.			
3) Since this application is in condition for allowar closed in accordance with the practice under E				
Disposition of Claims				
<ul> <li>4)  Claim(s) 1-10 and 13-22 is/are pending in the at 4a) Of the above claim(s) 2-10 is/are withdrawn</li> <li>5)  Claim(s) is/are allowed.</li> <li>6)  Claim(s) 1 and 13-22 is/are rejected.</li> <li>7)  Claim(s) is/are objected to.</li> <li>8)  Claim(s) are subject to restriction and/o</li> </ul>	n from consideration.			
Application Papers				
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomplicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine	epted or b) objected to by the drawing(s) be held in abeyance. Se tion is required if the drawing(s) is ob	e 37 CFR 1.85(a). ojected to. See 37 CFR 1.121(d).		
Priority under 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureau * See the attached detailed Office action for a list	s have been received. s have been received in Applicat rity documents have been receiv u (PCT Rule 17.2(a)).	ion No ed in this National Stage		
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disciplance Statement(s) (PTO-1449 or PTO/SB/08)				
Paper No(s)/Mail Date 6) L Other:				

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The application should be reviewed for errors. Error, occurs, for example in the spelling of "actiniomycete" in claim 1.

The amendment filed 12/18/03 is acknowledged. Claims 1 and 13-22 are being considered on the merits.

Claims 2-10 are withdrawn from consideration as directed to a non-elected invention.

This application contains claims 2-10 drawn to an invention nonelected with traverse in Paper filed 8/7/03. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 13-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 13 are vague and indefinite in the recitation of certain positions in the 16S rRNA without an indication of the context of these positions. The intended sequences must be in the specification and/or claims in proper form for examination and be properly identified.

Claim 17 is confusing and grammatically incorrect in the recitation "is a obtained".

## Response to Arguments

Applicant's arguments have been fully considered but they are not deemed to be persuasive.

Applicants provide a number of documents to attempt demonstrate that there are programs available to provide alignment of sequences of 16S rRNA. However, there is nothing in the documentation provided to indicate that there is a conventional numbering system within the sequences of 16S rRNA of Actinomycetes such that one of ordinary skill in the art would know unequivocally the position intended by 207, 366, 467, etc.. That sequences are conserved does not necessarily mean that their length is invariant. Depending on the variation in length and where counting starts, position 300 in one sequence may not be at the same location in another

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sequence. The precise meaning of applicant's intended positions cannot be readily determined. Applicant should provide a reference sequence, for example. At paragraph [0026] applicants indicate "(*E. coli* number system)". However, it is unclear how this "numbering system" applies. Moreover, the claimed invention makes no reference to any numbering system or the presence of certain "signature nucleotides", as now alleged.

Applicant's bald statement that "it is well known in the art that Actinomycetes can be identified by identifying signature nucleotides that occur at identified positions of the 16S rRNA" has not been clearly correlated to all Actinomycetes and the sequences identified herein. The relationship of these sequences to various Actinomycetes, such as *Streptomyces*, *Actinomyces*, *Brevibacterium*, *Nocardia*, *Arthrobacter*, etc. has not been set forth with any particularity. It is apparent that applicant intends certain defined groupings within the Actinomycetes, in particular, Micromonosporaceae. See, e.g., Specification, page 14, para. 22.

Therefore the rejection is deemed proper and it is adhered to.

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is (571) 272-0919. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Irene Marx

Primary Examiner Art Unit 1651